

Attachment – Additional Questions for the Record

Subcommittee on Oversight and Investigations – Committee on Energy and Commerce
Hearing entitled “Update on Restoration of Puerto Rico’s Electric Infrastructure”

April 11, 2018

The Honorable Frank Pallone, Jr.

1. QUESTION: After May 18, how many USACE contractors will be working in Puerto Rico?

ANSWER: Under the leadership of the Federal Emergency Management Agency (FEMA), USACE is working with other Federal agencies as part of the overall effort to restore power, and stabilize critical infrastructure in Puerto Rico.

On September 30, 2017, FEMA assigned USACE the mission of assisting the Puerto Rico Electric Power Authority (PREPA) restore power to the island. USACE works with FEMA, PREPA, and Puerto Rico’s restoration coordinator on this mission. This is a joint effort, and includes providing for a successful transition as the need for USACE involvement ends. On March 29, 2018, FEMA extended the USACE mission assignment through May 18, 2018. The USACE power restoration contractor will continue its work in parallel with PREPA and its contractors until then, after which PREPA would complete the restoration effort.

2. QUESTION: As part of the emergency power grid repairs mission assignment, the USACE has installed several large-scale generators, including mobile power generators, at Palo Seco and Yabocoa to provide additional power generation while the transmission system is still being restored. Is that correct? What arrangements, if any, have been made to transfer the ownership, use, or maintenance of these generators to PREPA so that these generators can continue to be used once the USACE mission assignment concludes?

ANSWER: Yes, that is correct. The generators also provide stability and responsiveness to the grid. They provide stability through voltage, power factor, and megawatt (MW) control. As for responsiveness, the generators are able to come back online or adjust their MW output much faster than the larger units at power plants. For example, the generators at Palo Seco were the first to come back online and provide power to the grid during April’s island-wide blackout.

3. QUESTION: The most recent numbers indicate that the grid is more than 96% restored, but that approximately 56,000 individuals remain without power. Is this the case?

ANSWER: As of the date of today’s hearing, PREPA reports that 96.9% percent or approximately 1.427 million of the 1.47 million customers in Puerto Rico who were able to receive electric power before the storm have now had their service restored, while 46,000 customers remain without power. Crews are working to restore power to these customers.

4. QUESTION: What lessons has USACE learned so far from working in Puerto Rico's difficult geographic conditions, and how are these lessons informing efforts to restore power for those who remain without it? How might these lessons be applicable in the instance that the USACE is tasked with hurricane response in similar geographic conditions?

ANSWER: USACE will participate in and contribute to discussions among the Federal agencies on lessons learned in Puerto Rico following Hurricane Maria. The distance and geographic separation of the island from the mainland, and its mountainous terrain, complicated the effort to provide assistance following the storms. The extent of the damage sustained across the island, and particularly to its transportation (ports, airfields, roads, and bridges), electric, and communications systems, compounded the logistical challenge.

For example, due to the difficulty in transporting material (e.g., poles) to mountainous locations, the recovery effort used alternate methods (e.g., helicopters) to get the needed materials and personnel to some of the work areas. In an environment as devastated as Puerto Rico, a methodical, site-by-site process was necessary to ensure safe grid restoration efforts.

5. QUESTION: What is the current target date for having power fully restored to the Caguas region? Does the USACE believe it will be able to fully restore power before it draws down its presence in Puerto Rico? If no, why not?

ANSWER: The current estimated date for having power fully restored in the Caguas region is July 20, 2018. PowerSecure, a USACE contractor, is working on eight circuits in the Caguas region, and expects to complete its assigned work on two of these eight circuits by May 18. After that, PREPA will take over and complete the work of restoring power to the customers served by the other six of these eight circuits in this region.

The concept of "working on a circuit" refers to work on a system of transmission and distribution power lines that includes providing for redundancy to allow transmission along an alternate pathway when a line is down or compromised for some reason.

6. QUESTION: What additional restoration measures is USACE taking following the island-wide blackout the week of April 15?

ANSWER: USACE supported PREPA as it worked to restore power from an island-wide power outage that occurred on April 18. In coordination with PREPA, USACE's focus was to bring its three generators, located at the Palo Seco and Yabucoa power plants, back on line. USACE also maintained continuous operation of four micro grids, which were not affected by this outage, as well as over 800 emergency power generators at multiple critical facilities.

7. QUESTION: In light of ongoing blackouts, is USACE in conversations with FEMA to extend the mission assignment until the grid is more stable?

ANSWER: The USACE power restoration mission is now scheduled to end on May 18.

8. QUESTION: How is USACE preparing for preparing for upcoming storms? For example, is the Agency leading trainings and exercises, or will emergency generators be left on the island in the event that Puerto Rico experiences similar power outages?

ANSWER: Storm preparation across the United States is a local municipality and state responsibility. Specifically in Puerto Rico, the Puerto Rico Emergency Management Agency (PREMA) oversees all emergency preparedness and response activities for the Territory.

PREMA, in coordination with the Puerto Rico Electrical Power Authority (PREPA) and FEMA, is identifying critical public facilities requiring back-up power generation support. Under FEMA direction, USACE is prepared to pre-position FEMA generators at selected critical facilities in preparation for the 2018 hurricane season. In support of PREMA, FEMA and the other federal partners also are supporting a PREMA sponsored and hosted multi-echelon exercise, scheduled for 18-21 June 2018. This exercise will focus on familiarizing responders with the revised PREMA emergency response synchronization checklist, and will help PREMA, FEMA, and the other federal partners prepare for the 2018 hurricane season.

Following a Presidentially declared disaster, FEMA directs the overall Federal response under the Stafford Act. USACE works with other Federal agencies as directed by FEMA, as part of the Federal effort.

The current power restoration mission in Puerto Rico also includes preparation for the full handoff of responsibility for the restored electric grid to PREPA. For example, FEMA is planning to leave around 600 small generators on the island that can provide power quickly to critical facilities on an emergency basis in the event of a future storm.

USACE will also participate in and contribute to discussions among the Federal agencies on lessons learned in Puerto Rico following Hurricane Maria. This would include consideration of the geography of the island, and the challenges in getting people, equipment, and supplies to its coastal and interior regions in the aftermath of a disaster. These discussions would inform future local and Federal planning and preparedness efforts, and will cover issues such as training, exercises, and the stockpiling of equipment and supplies.